

WHAT IS CLAIMED IS:

1. An information processing method for an information processing apparatus for distributing a third data string to a first information processing apparatus which generates a fourth data string by using a second data string generated based on a first data string and by using the third data string and which plays back or records the generated fourth data string, said information processing method comprising:

an acquisition control step of controlling the acquisition of a fifth data string containing first data required for reconstructing the second data string into the first data string;

a zone determining step of determining at least one zone of the fourth data string to be played back or recorded by said first information processing apparatus; and

a first generating step of generating the third data string to be distributed to said first information processing apparatus from the fifth data string controlled to be acquired in said acquisition control step based on said at least one zone determined in said zone determining step.

2. An information processing method according to claim 1, wherein, in said zone determining step, a plurality of

data zone candidates are prepared, and at least one of the data zone candidates is selected from the plurality of data zone candidates, thereby determining said at least one zone.

3. An information processing method according to claim 1, wherein, in said zone determining step, said at least one zone is determined randomly.

4. An information processing method according to claim 1, wherein, in said zone determining step, said at least one zone is determined so that a total playback time or a total recording time of the fourth data string in said at least one zone is within a predetermined period of time.

5. An information processing method according to claim 1, wherein, in said first generating step, the third data string including information indicating a playback start position or a recording start position of the fourth data string defined by said at least one zone is generated.

6. An information processing method according to claim 1, wherein, in said first generating step, the third data string including information indicating a playback data zone or a recording data zone of the fourth data string defined by said at least one zone is generated.

7. An information processing method according to claim 1, further comprising a band determining step of determining a frequency band of the fourth data string to be played back or recorded by said first information processing apparatus, wherein, in said first generating step, the third data string that allows the fourth data string to be played back or recorded within the frequency band determined in said band determining step is generated.

8. An information processing method according to claim 1, wherein the first data includes data separated from the first data string when the second data string is generated from the first data string, or includes data replaced by second data which is different from the first data.

9. An information processing method according to claim 1, further comprising:

a replacement step of replacing the first data contained in the first data string by second data which is different from the first data;

a second generating step of generating the second data string by using data generated in said replacement step; and

a third generating step of generating the fifth data string containing the first data.

10. An information processing method according to claim 9, wherein, in said replacement step, the first data contained in the first data string is replaced by the second data so that the playback quality of the second data string becomes lower than the playback quality of the first data string.

11. An information processing method according to claim 9, wherein the second data is data in which at least part of the first data is replaced by random data.

12. An information processing method according to claim 9, further comprising a coding step of coding input data, wherein, in said replacement step, the first data contained in the first data string is replaced by the second data by using the data coded in said coding step as the first data string.

13. An information processing method according to claim 12, wherein the first data contains normalizing-coefficient information used for coding processing in said coding step.

14. An information processing method according to

claim 12, wherein the first data contains quantizing-precision information used for coding processing in said coding step.

15. An information processing method according to claim 12, wherein the first data contains variable-length codes.

16. An information processing method according to claim 12, further comprising a transform step of transforming frequency components, wherein, in said coding step, data transformed in said transform step is coded, and the first data contains spectrum-coefficient information.

17. An information processing method according to claim 1, further comprising a reception control step of controlling a signal to be received from said first information processing apparatus, the signal indicating a request for the third data string designating the playback quality or the recording quality of the fourth data string, wherein, in said first generating step, the third data string that allows the fourth data string to be played back or recorded with the playback quality or the recording quality designated by the signal is generated.

18. An information processing apparatus for distributing a third data string to a first information processing apparatus which generates a fourth data string by using a second data string generated based on a first data string and by using the third data string and which plays back or records the generated fourth data string, said information processing apparatus comprising:

acquisition means for acquiring a fifth data string containing data required for reconstructing the second data string into the first data string;

zone determining means for determining at least one zone of the fourth data string to be played back or recorded by said first information processing apparatus; and

generating means for generating the third data string to be distributed to said first information processing apparatus from the fifth data string acquired by said acquisition means based on said at least one zone determined by said zone determining means.

19. A recording medium recording therein a computer-readable program for an information processing apparatus that distributes a third data string to a first information processing apparatus which generates a fourth data string by using a second data string generated based on a first data string and by using the third data string and which plays

back or records the generated fourth data string, said computer-readable program comprising:

an acquisition control step of controlling the acquisition of a fifth data string containing data required for reconstructing the second data string into the first data string;

a zone determining step of determining at least one zone of the fourth data string to be played back or recorded by said first information processing apparatus; and

a generating step of generating the third data string to be distributed to said first information processing apparatus from the fifth data string controlled to be acquired in said acquisition control step based on said at least one zone determined in said zone determining step.

20. A computer-executable program for controlling an information processing apparatus for distributing a third data string to a first information processing apparatus which generates a fourth data string by using a second data string generated based on a first data string and by using the third data string and which plays back or records the generated fourth data string, said computer-executable program comprising:

an acquisition control step of controlling the acquisition of a fifth data string containing data required

for reconstructing the second data string into the first data string;

a zone determining step of determining at least one zone of the fourth data string to be played back or recorded by said first information processing apparatus; and

a generating step of generating the third data string to be distributed to said first information processing apparatus from the fifth data string controlled to be acquired in said acquisition control step based on said at least one zone determined in said zone determining step.

21. An information processing method for an information processing apparatus for generating a fourth data string by using a second data string generated from a first data string and by using a third data string received from a first information processing apparatus, said information processing method comprising:

a reception control step of controlling the third data string to be received from said first information processing apparatus;

a replacement step of replacing first data contained in the third data string controlled to be received in said reception control step by second data contained in the second data string; and

a generating step of generating the fourth data string

to be played back or recorded in at least one zone by using data generated in said replacement step.

22. An information processing method according to claim 21, wherein the third data string includes information indicating a playback start position or a recording start position of the fourth data string.

23. An information processing method according to claim 21, wherein the third data string includes information indicating said at least one zone when the fourth data string is played back or recorded.

24. An information processing method according to claim 21, wherein the fourth data string is played back or recorded in said at least one zone with a quality equivalent to the first data string.

25. An information processing method according to claim 21, wherein the fourth data string is played back or recorded in said at least one zone with an audio band narrower than the first data string and broader than the second data string.

26. An information processing method according to

claim 21, wherein, in said replacement step, the first data is replaced by the second data so that the playback quality or the recording quality of the fourth data string becomes higher than the playback quality or the recording quality of the second data string.

27. An information processing method according to claim 21, further comprising a decoding step of decoding the second data string, wherein:

in said replacement step, the second data contained in the second data string is replaced by the first data; and

in said decoding step, the fourth data string generated in said generating step is decoded.

28. An information processing method according to claim 27, wherein the second data string is a coded data string, and the first data contained in the third data string includes normalizing-coefficient information.

29. An information processing method according to claim 27, wherein the second data string is a coded data string, and the first data contained in the third data string includes quantizing-precision information.

30. An information processing method according to

claim 21, further comprising:

a decoding step of decoding input data so as to transform the input data into frequency components; and
an inverse transform step of inverse-transforming the frequency components transformed in said decoding step into signal components, wherein
the first data contained in the third data string includes spectrum-coefficient information of the frequency components.

31. An information processing method according to claim 21, wherein the second data is data in which at least part of the first data is replaced by random data.

32. An information processing method according to claim 21, further comprising a transmission control step of controlling a signal indicating a request for the third data string to be transmitted to said first information processing apparatus by designating the playback quality or the recording quality of the fourth data string generated in said generating step.

33. An information processing apparatus for generating a fourth data string by using a second data string generated from a first data string and by using a third data string

received from a first information processing apparatus, said information processing apparatus comprising:

reception means for receiving the third data string from said first information processing apparatus;

replacement means for replacing first data contained in the third data string received by said reception means by second data contained in the second data string; and

generating means for generating the fourth data string to be played back or recorded in at least one zone by using data generated by said replacement means.

34. A recording medium recording therein a computer-readable program for an information processing apparatus that generates a fourth data string by using a second data string generated from a first data string and by using a third data string received from a first information processing apparatus, said computer-readable program comprising:

a reception control step of controlling the third data string to be received from said first information processing apparatus;

a replacement step of replacing first data contained in the third data string controlled to be received in said reception control step by second data contained in the second data string; and

a generating step of generating the fourth data string to be played back or recorded in at least one zone by using data generated in said replacement step.

35. A computer-executable program for controlling an information processing apparatus that generates a fourth data string by using a second data string generated from a first data string and by using a third data string received from a first information processing apparatus, said computer-executable program comprising:

a reception control step of controlling the third data string to be received from said first information processing apparatus;

a replacement step of replacing first data contained in the third data string controlled to be received in said reception control step by second data contained in the second data string; and

a generating step of generating the fourth data string to be played back or recorded in at least one zone by using data generated in said replacement step.